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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/386,052 08/30/99 OKUTANI

Y 1232-4563

EXAMINER

WM02/0327

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ARMSTRONG, A

ART UNIT

PAPER NUMBER

2641

DATE MAILED:

03/27/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/386,052

Applicant(s)

OKUTANI ET AL.

Examiner

Angela A. Armstrong

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2641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7;12-18;23 is/are rejected.
- 7) ☒ Claim(s) 8-11;19-22;24 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 7, 12-16, 18, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Campbell et al. (GB 2,313,530).

3. Regarding claims 1, 12 and 23, Campbell et al. teach:

Storing plural items of phoneme data at Figure 1, element 30; page 15, lines 21-25;

Retrieving phoneme data at Figure 1;

Assigning a penalty that is based on an attribute value at page 18, lines 1-25;

Selecting phoneme data to be employed in synthesis of a speech waveform at Figure 1, element 12.

4. Regarding claims 2 and 13, Campbell et al. teach:

Storing items of attribute information together with the phoneme data at Figure 1; page 15, lines 10-26; page 16, lines 1-5;

Penalty assigning means obtains attribute value from the stored attribute information at page 18, lines 1-25.

5. Regarding claims 3 and 14, Campbell et al. teach:

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Attribute information includes phoneme environment, phoneme boundary, fundamental frequency, power and phoneme duration at page 17, Table 1.

6. Regarding claims 4-5 and 15-16, Campbell et al. teach:

Retrieving phoneme data that satisfies a specified phoneme environment and fundamental frequency at page 18, lines 1-25; Table 2.

7. Regarding claims 7 and 18, Campbell et al. teach:

Assigning a penalty using power and phoneme duration as attribute data at Table 2.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell et al. in view of Manwaring et al. (US Patent No. 6,188,984).

Campbell et al. discloses everything claimed as applied in claims 1 and 12. Campbell et al. do not specifically teach penalty assigning which sorts retrieved phoneme data based upon a prescribed attribute value and assigns a penalty value on the basis of the sorting order. Refer to Manwaring et al., who teach a syllable parsing method that ranks phonemes of a retrieved sequence based on the type of phoneme (Figures 2, 3; col. 2, lines 4-14; col. 3, lines 60-67), and

teaches that this system can be used in text-to-speech applications to produce natural sounding, computer-generated speech.

Therefore, to the extent that Campbell et al. do not specifically teach a sorting or ranking scheme for the retrieved phoneme data, it would have been obvious to one of ordinary skill at the time of invention, to modify the speech synthesis system of Campbell et al. and implement phoneme ranking or sorting based on the phoneme type, for the purpose of improving the naturalness and intelligibility of the synthetic speech, as suggested by Manwaring et al.

Allowable Subject Matter

10. Claims 8-11, 19-22, and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela A. Armstrong whose telephone number is 703-308-6258. The examiner can normally be reached on Monday-Thursday 7:30-5:00 PM.

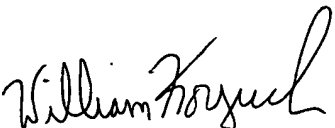
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on 703-305-6137. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-6306 for regular communications and 703-308-6296 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

AAA

March 25, 2001


WILLIAM KORZUCH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800